



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/194,286	11/23/1998	UWE BRIEM	P98.2706	3028

29177 7590 07/09/2002

BELL, BOYD & LLOYD, LLC  
P. O. BOX 1135  
CHICAGO, IL 60690-1135

EXAMINER

ABELSON, RONALD B

ART UNIT PAPER NUMBER

2663

DATE MAILED: 07/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/194,286

Applicant(s)

BRIEM, UWE

Examiner

Ronald Abelson

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 November 1998 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 2663

*Drawings*

1. Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The applicant states that a drawing correction has been submitted that was not found by the examiner.

*Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 7, 9, 11, 13, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art, and further in view of Hayter (US 5,734,650).

Art Unit: 2663

Regarding claim 7, the applicant's admitted prior art teaches providing a queue identifier which is stored in a packet header (fig. 2 elements QID=1..N), pg. 2 lines 19 - 29).

The applicant's admitted prior art fails to teach providing a first scheduling means for lower transmission rate data packets, and providing a second scheduling method for upper transmission rate.

Hayter teaches a method and apparatus for transmitting data packets / ATM cells (col. 1 lines 6-9), providing a first scheduling means for lower transmission rate data packets (fig. 2 box 30), and providing a second scheduling method for upper transmission rate data (fig. 2 box 32, col. 3 line 44 - col. 4 line 5).

Therefore it would have been obvious to one of ordinary skill in the art, having both applicant's admitted prior art and Hayter before him/her and with the teachings [a] as shown by applicant's admitted prior art, a queue identifier which is stored in a packet header, and [b] as shown by Hayter providing a first scheduling means for lower transmission rate data packets, and providing a second scheduling method for upper transmission rate, to be motivated to modify the system of applicant's admitted prior art by replacing the scheduler device (applicant: fig. 2 element S) with the Hayter's system as

Art Unit: 2663

proposed in fig. 2. This would improve the system by allowing cells to be processed at different rates. Therefore high priority data could be processed more quickly than lower priority data.

Regarding claim 9, the combination of the applicant's admitted prior art and Hayter teaches providing an input device which contains a table which includes the current filling levels of buffer stores (Hayter: last time cell was transmitted, fig. 2 box 46, col. 3 line 44 - col. 4 line 5).

Regarding claim 11, the combination of the applicant's admitted prior art and Hayter teaches providing an output device for taking the data packets from at least one of the buffer stores, depending on control data obtained from the first scheduling method (Hayter: col. 3 line 44 - col. 4 line 5).

Regarding claim 13, it would be obvious to one who is skilled in the art to enter the queue identifiers while the connection is being set up as opposed to at a later time. This would ensure that when cells arrived at the demux the appropriate queue identifiers would be known to the system.

Regarding claims 15 and 16, the data packets are ATM cells (Hayter: col. 1 lines 5 - 9).

Art Unit: 2663

4. Claims 8, 10, 12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of the applicant's admitted prior art and Hayter as applied to claim 7 above, and further in view of Bennett (US 5,828,878).

Regarding claim 8, the combination of the applicant's admitted prior art and Hayter is silent on the scheduling method used for the lower transmission rate data.

Bennett teaches the weighted fair queuing algorithm is desirable for providing fair service to sessions contending for a common resource in a packet switched network (col. 1 lines 26 - 49).

Therefore it would have been obvious to one of ordinary skill in the art, having both the combination of the applicant's admitted prior art and Hayter and Bennett before him/her and with the teachings [a] as shown by the combination of the applicant's admitted prior art and Hayter, transmitting data packets / ATM cells, providing a first scheduling means for lower transmission rate data packets, providing a queue identifier stored in a packet header, and providing a second scheduling method for upper transmission rate data, and [b] as shown by Bennett the weighted fair queuing algorithm is desirable for providing fair service to sessions contending for a common resource in a packet switched network, to be motivated

Art Unit: 2663

to modify the system of the combination of the applicant's admitted prior art and Hayter to include the weighted fair queuing algorithm in the lower transmission rate scheduler. This could be done in software. This would improve the system since the weighted fair queuing algorithm has been shown to be effective in data packet systems.

Regarding claims 10/12/14, the same rejections given for claims 9/11/13 applies.

#### ***Response to Arguments***

5. Applicant's arguments filed 6/19/2002 have been fully considered but they are not persuasive.

The applicant argues, "Hayter et al.'s sustainable cell rate calendar 30 is connected in series with the peak cell rate calendar 32. There are no provisions which allow the peak cell rate calendar 32 to precede the sustainable cell are calendar 30."

As in the case of the applicant, one of the calendars may be selected. Hayter et al. states, "The ATM cells are not placed on the peak cell rate calendar 32 unless the above mentioned PCR threshold might be exceeded." (col. 3 line 44 - col. 4 line 5). Therefore, the applicant is incorrect in stating that Hayter teaches a "series relationship" between the two calendars.

Art Unit: 2663

Secondly, the applicant does not teach the significance of placing the first peak cell rate calendar ahead of the sustainable cell rate calendar. Both the applicant and Hayter et al. teach a system where the input data may be processed by both calendars.

*Conclusion*

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



Art Unit: 2663

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (703) 306-5622. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

Ronald Abelson  
Examiner  
Art Unit 2663

\*\*\*

July 8, 2002

MELVIN MARCELO  
PRIS



MELVIN MARCELO  
PRIMARY EXAMINER